Risk Mapping, Assessment, and Planning (Risk MAP)
National Waterways Conference- 2014 Legislative Summit

Doug Bellomo
Director, Risk Analysis Division, FEMA
March 26, 2014
Disaster Risk Reduction: FEMA Strategic Objectives

Enable disaster risk reduction nationally

- Provide Credible, Accessible, and Actionable Risk Data
- Advance Risk Management Capability across the Whole Community
- Lead a National Cultural Shift toward Disaster Risk Reduction
- Ensure FEMA Programs are Demonstrably Flexible and Adaptive to Support Leading Risk Reduction Efforts
- Strengthen Collaboration in Risk Reduction across the Federal Government
Risk MAP (Mapping, Assessment, and Planning) Vision

Through collaboration with State, Local, and Tribal entities, Risk MAP will deliver quality data that increases public awareness and leads to action that reduces risk to life and property.

Watershed Approach

Science Based Hazard and Risk

FEMA
Risk MAP Goals

Deliver High-Quality Risk Data
- Understandable Flood Maps
- Credible data—reliable, accurate, watershed-based
- Illustrations of possible Flood Depths
- Usable Flood Risk Assessments

Increase Awareness of Flood Risk
- Tools to understand how flood risk has changed
- Continuous engagement with communities
- Enable communities to communicate flood risk to constituents

Promote Community Mitigation Action
- Support that allows communities to identify risks and promote:
  - Community resiliency
  - Sustainability
  - Reduced need for federal disaster assistance

Reduce Risk to Lives and Property

Enhance delivery of Risk MAP Products

Collaborate across all levels of government
Risk MAP Focus Areas for 2014

Technical Credibility and Quality Data

Enhanced community engagement

Emphasis on driving communities towards taking mitigation actions

Implementing new approach to levee analysis and mapping for non-accredited levees
Risk MAP Progress Portal

Interactive geo-portal launched in 2013
Provides transparency into FEMA’s investments
Data is updated quarterly
www.riskmapprogress.com
Hurricane Sandy: Using best available data to drive rebuilding

Federal, State, and local collaboration to inform recovery and rebuilding

FEMA provided best available data

Partnered with NOAA and USACE on Sea Level Rise tools to consider future risks

State and local leaders used the science and other resources to meet their needs

- NJ rebuilding standards
- NYC resiliency planning
Best Available Data to Rebuild Homes and Infrastructure

Informs homeowner decisions as they make repairs or rebuild

Elevating to new requirements can yield significant savings on flood insurance premiums

Leverage recovery resources to incorporate mitigation into rebuilding of infrastructure

Federal flood risk reduction standard for federally-funded Sandy-related rebuilding projects
Levee Analysis and Mapping

Published a new approach: Levee Analysis and Mapping Procedures (July 2013)

- Details how FEMA will analyze and map non-accredited levee systems (not 44CFR65.10 Compliant)
- Replaces “Without Levee” designations

Hallmark Principles

1. Interactive Stakeholder Engagement Process
2. More Robust Levee Analysis and Mapping Procedures
3. Recognition of the Uncertainty Associated with Levee Systems
4. Analysis of Levee Reaches

25 pilot projects FY13, 30-50 more FY14
Scenario to Match Situation – By Reach

Accredited

Freeboard Deficient Reach

Sound Reach

Overtopping Reach
More Scenarios

Structural-Based Inundation Reach

Natural Valley Reach
New Approach: Community Partnerships and Technical Credibility

Public Engagement and Data Gathering

Stakeholder Engagement

Local Levee Partnership Team (LLPT)

Final Plan

Final Mapping and Analysis

Public Review

New Approach

Future Actions

RiskMAP
Increasing Resilience Together
Building Resilience Based on Future Conditions

NFIP Climate Change Report

- Combined Riverine and Coastal: By 2100 the weighted national average size of SFHAs may increase by about 40% to 45%
- By 2100, population within riverine and coastal SFHAs will increase by approximately 130-155%
- Total number of NFIP policyholders is estimated to increase approximately 80-100% cumulatively through 2100

President’s Climate Change Action Plan

- Directs federal agencies to “update their flood-risk reduction standard.”
- The standard should provide a minimum level of risk reduction against flood hazards and rely on the best available, actionable science.